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OBITUARY NOTICES OF DECEASED FELLOWS.

SIR CHARLES BARRY was born on the 23rd of May, 1795, and was the son of a respectable stationer in Bridge Street, Westminster. Having displayed an early and striking talent for drawing, he was articled at the age of sixteen to Messrs. Middleton and Bailey, surveyors in Lambeth, with whom he remained five years, acquiring the elementary principles of his future profession, and those practical technicalities in which they were more particularly engaged; and he was occasionally a contributor to the Exhibition of the Royal Academy.

In 1816 he lost his father, and having succeeded to a few hundred pounds, he determined to go abroad in order to perfect himself in the highest walks of his art. He there studied the masterpieces of ancient and modern architecture existing on the continent, making a most diligent use of his time; for he was untiring in his application, and conscious of the great fruits to be derived from availing himself of every opportunity of laying up a rich treasury of reference for an after time. He spent several months at Rome; and with some other brother artists of like tastes, as Sir Charles Eastlake, the present President of the Royal Academy, and Mr. Kinnaird, Editor of the most recent edition of Stuart's 'Athens,' he passed on to Greece, where he studied the Parthenon, Theseum, and other monuments of the Periclean age, views of which he subsequently exhibited in the Royal Academy.

Having exhausted his means, he was on the point of returning home, when an English traveller, Mr. Baillie, who was struck by the freedom of his pencilling, and who wished to preserve some records of a projected tour in Egypt and Syria, engaged young Barry to accompany him as his artist; and during 1818 and 1819 he had the opportunity of drawing the remarkable monuments and sites of those interesting countries. In 1820 he returned to England, married, and entered upon the practice of his profession. He had for some years to struggle with the difficulties which usually fall to the lot of young men commencing a professional career, even those endowed with the highest qualifications, until they can procure opportunities of showing the extent of their acquirements and capacity for the actual

business of life. His earlier works of note were St. Peter's Church at Brighton and the Manchester Royal Institution, which he gained in competition. These at once gave him a name. He then built three churches in Islington; and having thus established his standing in the profession, he became very largely employed. The Traveller's Club House, which he also gained in competition, the Free Grammar School at Birmingham, and the Reform Club, are remarkable specimens of the elegance and vigour of his taste in various styles of art. But the great monument of the present age is the Palace of Westminster, or Houses of Parliament, the prize for which he carried off from nearly 100 competitors. This was in 1836; but it was not till 1840 that the works were actually commenced; and considering the immense extent of the building, the elaborate nature of its decoration, the variety of uses to which the several portions were to be applied, the accommodation to be provided, and the questions of light, ventilation, and selection of materials which demanded the laborious and incessant attention of the architect upon this, the largest of modern edifices in Europe, we must feel surprised that he was able to go through the harassing and arduous duties, and to complete it in twenty years. We may quote the opinion, and words almost, of his able biographer, Mr. Digby Wyatt, and say that "no public building of Europe possesses a more ingenious or effective plan, a more perfect homogeneousness of parts and style, a more graceful outline under every point of view, and greater technical excellences and beauty. In vain will the most critical observer wander into every nook and corner of that enormous structure and detect a neglected point where the failing attention or ability of the architect has allowed a degeneration into meanness of finish, dissymmetry of axes or leading features, or faulty proportion of line or detail."

It would constitute a long list to enumerate the buildings of more or less importance in the metropolis and the provinces of which Barry was the architect. He was a Royal Academician, and on the occasion of the opening of the Houses of Parliament, he received the honour of knighthood from Her Majesty. To him also were awarded the great Gold Medal of the Paris Exhibition of 1855, and the Royal Gold Medal of the Institution of British Architects. He died somewhat suddenly on the 12th of May, 1860, at the age of 64, and

he was buried in the nave of Westminster Abbey, near the grave of his friend, Robert Stephenson, with all the public honours due to his genius and worth.

Barry was a man of rich and varied imagination, and so difficult to please, that he incessantly studied modification upon modification during the progress of his works. He had great power of drawing, and a thorough appreciation of form; and so perfectly master was he of both Italian and Mediæval art, which have elements of proportion, form, and decoration apparently at utter variance with each other, that he treated them with equal judgment and taste. But it was remarked that he had not an harmonious eye for colour. He was untiringly laborious, and as a practical architect he brought to bear a vast fund of scientific resource and daring intelligence. He was justly held in high professional estimation by the architects of all countries, and was honoured by all who knew him for his worth, integrity, and independence; and his name will descend to posterity associated with the grandest and finest edifices of his time.

SIR THOMAS MACDOUGALL BRISBANE, Baronet, was the eldest son and representative of an old family of considerable note in the west of Scotland. He was born at Brisbane House, the family seat in Ayrshire, on the 23rd of July, 1773, and after a long, active, and eventful life passed in various parts of the world, died at the same place on the 27th of January, 1860.

As was usual with the sons of the landed gentry in Scotland, Sir Thomas received his early education at home under a private tutor, and then studied for a time at the University of Edinburgh. He was finally sent to an Academy near London, where he had the opportunity of attending lectures in the metropolis on various subjects, including mathematics and astronomy.

In 1789 he began military life as an ensign in the 38th Regiment, but having, on the breaking out of the war in 1793, raised an independent company which was attached to the 53rd Regiment, he joined the army in Flanders as captain, and was present at the engagement before Valenciennes and at the siege and capture of that place, which were the first operations of the war. He shared in the severe winter's retreat through Holland in 1794, and continued with the Duke of York's army until its return to England in 1795. He

then sailed with the expedition under Sir Ralph Abercromby to the West Indies, where he remained for five years, and was at the reduction of St. Lucia and St. Vincent, the capture of Trinidad, and the attack on Porto Rico. He also served throughout the whole Caribbean war, and then went to Jamaica as Lieutenant-Colonel of the 69th, where he remained till his regiment was called home.

Having in 1812 received the appointment of Brigadier-General under the Duke of Wellington, Sir Thomas immediately proceeded to the Peninsula. In the course of his services there he commanded a brigade in five general actions, besides a great many minor affairs ; and he received the thanks of Parliament for the part he took in the battle of Orthes, where he had 700 men of his brigade killed and wounded. At the termination of the war he accompanied a portion of the Duke of Wellington's army to North America and served in the campaign of 1814, but returned to Europe the year following with twelve regiments to join the army of occupation in France, where he remained during the three years of its stay in that country. A year or two afterwards Sir Thomas was appointed Governor of New South Wales, and entered on the duties of his office in 1821. During the four years of his government he made important ameliorations in the management of the convicts, turning their previously profitless labour to account in the clearance of the land and the service of the colonists, as well as to their own advantage ; he introduced the cultivation of the vine, the sugar-cane, cotton, tea, and tobacco, and improved the breed of horses, by importations at his own expense from Mocha and Calcutta. On his departure for Europe, he received the grateful acknowledgements of the colony, and a prosperous district of that interesting region now bears his name.

For these eminent services, military and civil, Sir Thomas received the usual honours. He was created a Baronet and a Knight Grand Cross of the Bath, and finally rose to the rank of General. But his military career, distinguished as it was, and his wise and beneficent colonial administration, are matters of less immediate interest here than the services he has rendered to science, and especially to astronomy.

From his schoolboy days Sir Thomas was devoted to mathematical studies. To his favourite pursuit of astronomy, he was turned, as he himself states, by exposure to imminent danger in one of his early

voyages through a mistake of the commander of the ship in estimating the longitude; an incident which left on his mind a deep sense of the practical advantages of a knowledge of astronomy. His warm attachment to the science which thus arose, never abated, and he found means to indulge it even amid the distractions of an active and adventurous military life, by making observations with a pocket sextant; and we have the testimony of the Duke of Wellington that he kept the time of the army. In the same spirit he availed himself of a brief interval during which he returned home in 1808, to erect an observatory at Brisbane, his native place, in which he personally worked as an observer. But it was when appointed Governor of New South Wales that he was enabled to perform his greatest service to Astronomy. With this object in view, he carried with him to the colony an outfit of costly instruments, and immediately on his arrival in 1821, selected the site for an observatory at Paramatta, and set about the erection of a suitable building; all at his own expense. Before leaving England he had engaged the services of Mr. C. Rumker, then an astronomer of considerable experience, and now one of our Foreign Members, to conduct the contemplated observatory. His own public duties would of necessity seldom admit of his devoting any material portion of his time to actual observation, yet he frequently took a personal share in the work; and in particular, a great portion of the transits were observed by himself.

On the return of Sir Thomas and Mr. Rumker to England, a volume of the Observations made at Paramatta by Mr. Rumker and reduced by him were, with Sir T. Brisbane's approval, presented by Mr. Rumker to the Royal Society, and constitute Part 3 of the Philosophical Transactions for 1829.

It was through the labours at this observatory that astronomical science became enriched with the large series of observations of Southern Stars, for the most part communicated in the first instance to the Royal Society, but afterwards collected and published in 1835, under the well-known title of "The Brisbane Catalogue of Stars;" and on account of these observations, and the great services rendered by him to Astronomy in the Southern Hemisphere, Sir Thomas received the Gold Medal of the Royal Astronomical Society in 1828. In announcing this award, the President, Sir John Herschel, refers also to the observation of the solstices of 1821, 1822 and 1823; the rediscovery of

Encke's Comet in its predicted place on the 2nd of June, 1822, when, owing to its position in the heavens at its perihelion passage, it could not be seen in Europe; and the determination of the length of the pendulum at Paramatta. Speaking of the observations of the places of Southern Stars, the same pre-eminent authority characterizes them as forming one of the most interesting and important series which has ever been made, and considers that they must ever be regarded as marking a decided era in the history of southern astronomy; and he concludes his address in the following words:—"It is for this long catalogue of observations, whether scattered through the journals of Europe, printed in our own memoirs, or deposited as a precious charge in the care of a Body so capable of appreciating their merits, but still more for the noble and disinterested example set by him in the establishment of an Observatory on such a scale in so distant a station, and which would have equally merited the present notice had every observation perished on its voyage home, that your Council have thought Sir Thomas M. Brisbane deserving of the distinction of a medal of this Society." It may be added that this distinction was not the less deserved, although it has been since found that from causes which Sir Thomas could not well have obviated, the Catalogue of Stars has turned out to be a less valuable result of the Australian Observatory than its enlightened and munificent founder had reason to anticipate.

On his return from New South Wales, Sir Thomas founded an Astronomical Observatory at Makerstoun, a residence he possessed near Kelso; and he subsequently established at the same place a Magnetical Observatory, which he furnished with the best instruments, and appointed with a staff of able assistants, at his own charge. The magnetical observations made at this observatory since its erection in 1841, up to 1849, have been published in three quarto volumes, and a fourth, containing the later observations, is now in the press. The copyright of these volumes has been presented to the Royal Society of Edinburgh, and they now form part of the record of the Society's Transactions. For these magnetical observations, the Society awarded Sir Thomas the Keith Medal in 1848.

Sir Thomas Brisbane became a Fellow of the Royal Society in 1810; he was also a Fellow and Vice-President of the Royal Astronomical Society. He entered the Royal Society of Edinburgh as a

Fellow in 1811, and in 1832 was unanimously elected President as successor to Sir Walter Scott. During his presidency he founded two medals for the reward of scientific merit, one to be conferred by the Royal Society of Edinburgh, the other by the Scottish Society of Arts.

A list of Sir Thomas Brisbane's published contributions to science, drawn up by his friend Alexander Bryson, Esq., F.R.S.E., will be found in a memoir entitled "*Reminiscences of General Sir T. M. Brisbane*," printed for private circulation, 4to, Edinburgh, 1860, to which we have been chiefly indebted in compiling the present notice.

Lieutenant-Colonel WILLIAM MARTIN LEAKE, born in London, January 1777, was the son of John Martin Leake, a commissioner for auditing the public accounts, and grandson of Stephen Martin Leake, Garter Principal King-at-Arms. He was educated at the Royal Military Academy, Woolwich, and in 1794 obtained a commission in the Artillery, and entered on the active duties of his profession in the West Indies. Five years later he was sent to Constantinople on a mission for the instruction of the Turks in the use of artillery; and in 1800 he was one of the English Officers selected to advise and assist the Grand Vizier in his defence of the southern provinces of the Turkish Empire against the French. Captain Leake consequently travelled through Asia Minor, and, after some delay, ultimately joined the Turkish army in Syria. In 1801 he crossed the Desert with the army into Egypt, and on the surrender of Alexandria he was appointed to visit Upper Egypt in company with Mr. William Hamilton, for the purpose of making a general survey of that country. The results of their exploration were a map of the course of the Nile, from the Cataracts to the sea; a determination of most of the ancient sites; a description of the monuments of antiquity, and a large collection of observations on the agricultural and commercial state of the country. An account of their travels was published by Mr. Hamilton in 1809.

Having returned to Syria in 1802, Capt. Leake there continued his travelling researches until the time of his departure for England. He embarked on board the vessel in which the Elgin marbles were placed for conveyance to London, and narrowly escaped with his life from shipwreck off the Island of Cerigo. In 1804 he received orders to survey the coasts and interior of European Turkey, the

fortresses and means of defence, and to make their condition known to the native chiefs and governors. In pursuance of these orders he travelled during two years in Northern Greece and the Morea, and discharged his duties to the full satisfaction of the home authorities, while, as has been remarked, "his peculiar tastes and talents for research received full development in a country where every day's journey produced an historical problem, which it taxed his erudition and critical acumen to solve."

On the breaking out of hostilities between England and the Porte in 1807, Capt. Leake was detained and held prisoner by the authorities at Salonica, from which place he, however, escaped to the frigate 'Thetis,' and returned to England for the restoration of his health in 1808.

From October of the same year until 1810 he again travelled in the Levant, under command to open communications with Ali Pasha of Joannina, and other authorities of the Ottoman government, with a view to induce them to proceed to offensive operations against the French, by offers of naval assistance along the coast, and presents of ordnance and ammunition. To these successive years of travel he owed his knowledge of the various countries, their people and monuments, which afterwards proved so valuable and instructive in his literary labours.

These labours were resumed on his retirement from the army in 1823, and were continued to the time of his death on the 6th of January, 1860. His works comprise 'Researches in Greece,' 'Topography of Athens,' an edition of 'Burckhardt's Travels,' 'Travels in Asia Minor,' 'Historical Outline of the Greek Revolution,' 'Demi of Attica,' besides other books of travels in Greece, and on the topography and coins of that country,—a country for which he always felt the liveliest interest. His sympathy for Greek nationality gained him the gratitude of the people, as manifested by the voluntary attendance of the Greek minister at his funeral.

In 1838 Col. Leake married Mrs. Marsden, widow of William Marsden, Esq., F.R.S., the historian of Sumatra, and daughter of the eminent oriental scholar Sir Charles Wilkins, F.R.S.

Col. Leake was a member of various learned societies, English and foreign. He became a Fellow of the Royal Society in 1815, and was elected a member of the Royal Society Club in 1828. His intellec-

tual vigour remained unabated to the close of a life prolonged to the age of 83, and its results are left to us in works which "are models of painstaking observation, available erudition, and perspicuous simplicity."

JOSEPH LOCKE was born at Attercliffe, near Sheffield, in 1806, and educated at the Grammar School of Barnsley, whence he passed to Newcastle-on-Tyne, and there learned the elements of engineering under George Stephenson. He commenced the active duties of his profession on the Liverpool and Manchester Railway, where during four years he had full opportunity for applying principles to practice, in the overcoming of 'engineering difficulties.' And he was one of those who, after the opening of the line in 1830, aided in demonstrating the superiority of the locomotive engine over the other kinds of motive power then proposed. He next completed the Grand Junction line connecting the Liverpool and Manchester Railway with Birmingham, which had been begun by George Stephenson, and established a reputation for economy which he always afterwards retained, by keeping the cost within the estimate. To this proof that a railway could be made for less than £15,000 a mile, and to his habitually cautious methods, he owed most of his success. His other principal works are the London and Southampton Railway; the Havre and Paris Railway, *via* Rouen; the line from Barcelona to Mattaro, and the Dutch-Rhenish line. Moreover, the Lancaster and Carlisle, the East Lancashire, the Caledonian, the Scottish Central and Midland, the Aberdeen lines and Greenock Railway and Docks, the Paris and Cherbourg line, were all constructed under his superintendence, jointly with his partner, Mr. Errington. He planned lines also which were constructed by other engineers.

Few men have excelled Joseph Locke in resolute adaptation of means to ends; even his greatest works display no signs of extravagance, and yet are efficient, and appropriate to their situation. He had no unimportant share in the improvement of the locomotive, and showed the practicability of making it travel over unusually steep gradients.

Mr. Locke succeeded Robert Stephenson as President of the Institution of Civil Engineers; he was elected a Fellow of the Royal Society in 1838, and from the year 1847, to the time of his decease,

he sat in Parliament for Honiton. He was suddenly and prematurely cut off by an attack of iliac passion at Moffat, on the 18th of September, 1860.

CHARLES MAY, son of a member of the Society of Friends, was born at Alton, Hampshire, in the year 1800. At an early age he began to exhibit proofs of the mechanical genius which became conspicuous in his later years, and with but little help from schooling, for his education is said to have been scarcely better than that now within reach of workmen. He was apprenticed to Mr. Sims, a chemist and druggist of Stockport, whose daughter he afterwards married; and having returned to Ampthill, to which town his parents had removed from Alton, he commenced business on his own account, as a retail and manufacturing chemist, and to this in course of time he added the business of a millwright.

In 1836 he accepted a partnership with Messrs. Ransome, agricultural implement makers of Ipswich, taking charge of the engineering department, and the results of his vigorous management were speedily shown by the rising importance of the firm and increase of business. During this connexion Mr. May constructed a dome for the observatory at Hartwell House, and for Mr. Barclay's observatory at Bury Hill, the equatoreal mounting for Ross' large object-glass, which occupied a conspicuous place in the Exhibition of 1851, and the great Transit Circle and the Altazimuth, now in use at the Greenwich Observatory. The latter are deservedly admired for their perfect construction, which completely realized the conceptions of the Astronomer Royal, and improved to an unprecedented extent the mechanical resources of astronomical science. Mr. May moreover erected an observatory for his own use, and furnished it with a transit instrument and clock, and a Merz achromatic telescope of $6\frac{1}{2}$ inches aperture. And in other departments of the engineering business he instituted experiments on the strength of iron, effected improvements in the permanent way of railways, invented the compressed tree-nails for fixing railway chairs to the sleepers, and was the first to introduce the process of 'chilling' for the pivots of large instruments.

Mr. May was a member of the Royal Astronomical Society and of the Institution of Civil Engineers; he was elected into the Royal

Society in 1855. He removed from Ipswich to London in 1851, and died suddenly on the 10th of August, 1860, leaving behind him a reputation for high professional ability, and for an amiable and beneficent disposition, varied by keen humour, in private life.

The biography of Lord Macaulay belongs rather to the history of Literature than to that of Natural Philosophy : he takes his proper place among the Statesmen, Orators, Poets, Essayists, Historians of England, not among her men of Science. With a mind so active and wide-ranging, he could not but take deep interest in the progress and in the marvellous discoveries of modern science ; but he was content to accept those results on the authority of others, and to dwell on their political and social consequences, rather than himself to follow out their slow and laborious processes, for which, indefatigable as he was, he had no time, probably no inclination. Yet the annals of the Royal Society, which has ever been proud to enrol among its Members statesmen and men of letters of the highest eminence, cannot pass over in silence a name so illustrious as that of Lord Macaulay.

THOMAS BABINGTON MACAULAY was born October 25, 1800, at Rothley Temple in Leicestershire, the seat of his paternal uncle Thomas Babington. His father, Zachary Macaulay, resided at Clapham, one of those earnest and zealous men who, with Mr. Wilberforce, led the way in the strong religious reaction which followed the French Revolution, and whom posterity will honour as among the earliest and most steady adversaries of the African Slave Trade, the advocates of the emancipation of the negroes in our Colonies. The perpetual agitation of such questions, involving the most sacred principles of human liberty, could not be without its effect on the precocious mind of the young Macaulay. Perhaps to his birth and training in that school he owed in some degree his command of biblical illustration, which, however, his strong sense and sober judgement always kept within the limits of serious and respectful reverence. Family traditions, happily only traditions, of his early promise, of his childish attempts at composition in prose and verse, were not likely to be lost among a strong religious party, bound together by common sympathies, and maintaining an active correspondence throughout the country. The fame of young Macaulay reached the ears of Hannah More, and, after receiving a visit from him, the High Priestess of the

brotherhood, in an agreeable letter, still extant, uttered an oracle predictive of his future greatness. After a few years of instruction at a small school in Clapham, at the age of 12 he was placed under the care of the Rev. Mr. Preston, first at Shelford, afterwards near Buntingford, in the neighbourhood of Cambridge. Mr. Preston seems to have been a man of attainments and judgement. He must have taught the Latin and Greek authors extremely well, for under his instruction Macaulay became a sound and good scholar. He did more, he fostered that love for the great classical writers, without which all study is barren and without durable impression. He respected too that great maxim, that no one is so well taught as by himself. Having given or strengthened the impulse, he left the young scholar to his own insatiable avidity for learning, and for books of all kinds. The schoolboy sent an anonymous defence of novel reading to the serious journal of his father's friends, the *Christian Observer*, which was inserted. This passion for novel reading adhered to him to the last; he swept the whole range, not only of English but of foreign fiction, not without great profit to the future historian. The higher tastes which he then imbibed were equally indelible; his admiration of the unrivalled writers of Greece and Rome grew deeper to the close of his life. Homer and Thucydides, and Tacitus, remained among his constant and familiar studies, and no doubt, without controlling him to servile imitation, exercised a powerful influence on his mode of composition and on his style. Among his father's friends holding the same religious opinions, was Isaac Milner, Dean of Carlisle, and Master of Queen's College, a man with a singular union of profound mathematical acquirements, strong evangelical views, and a peculiar broad humour. During his visits to Milner at Cambridge, Macaulay acquired that strong attachment to the University, which, like his other attachments, seemed to become more strong and fervent with the progress of years.

In his 19th year he began his residence at Trinity College, Cambridge. His career at Cambridge was not quite so brilliant as the sanguine expectations of his friends had foretold. He had a repugnance for mathematics, or rather he was under the jealous and absorbing spell of more congenial studies. That repugnance in after life was a subject of much regret; he fully recognized the importance, almost the necessity, of such studies for perfect educa-

tion; even his scholarship, probably far more extensive, wanted that exquisite polish and nicety acquired only at our great public schools, from which came his chief rivals. He carried away, however, the Craven Scholarship, two prizes for English verse, and finally, the object of his highest ambition, a Fellowship of Trinity College. On this success he dwelt to the close of his life with pride. It gratified two of his strongest feelings,—attachment to Cambridge, and the desire of some independent provision which should enable him to enter on his professional career. On the inestimable advantages of such fellowships to young men of high promise and ability but of scanty means, he always insisted with great earnestness, and deprecated any change in the academical system which should diminish the number of such foundations, held, as he would recount with his unfailing memory, by so many of our first public men.

The Law was the profession he chose; he was called to the Bar at Lincoln's Inn, February 1826; he took chambers, he read, he joined the Northern Circuit. But literature was too strong for law. His legal studies were no doubt of infinite value; they were in truth indispensable for his historical writings, and were hereafter to bear fruit in a sphere which his wildest imagination could not anticipate. He had received, indeed, from the discerning judgment of Lord Lyndhurst, a Commissionership of Bankrupts, 1827. No doubt his Cambridge fame and general promise recommended him for that office. But it was to letters that he was to owe his first opening to public life. In letters he had begun with modest contributions to a magazine, *Knight's Quarterly*, of no great circulation, but which was mainly supported by some of his Cambridge friends: in this appeared some of his finest ballads. On a sudden he broke out with an article on Milton in the *Edinburgh Review*, which perhaps excited greater attention than any article which had ever appeared, not immediately connected with the politics of the day. Taking the field in the same pages with the brilliant copiousness of Jeffrey, the vigorous and caustic versatility of Brougham, the inimitable wit and drollery and sound sense of Sydney Smith, to say nothing of the writers in the rival *Quarterly Journal*, the young reviewer had struck out his own path. In comprehensiveness of knowledge, in the originality and boldness of his views, in mastery over the whole history and the life of the eventful times of Milton, in variety and felicity of

illustration, in vigour, fulness, and vivacity of style, he seemed to make an epoch and a revolution in review-writing. Up to this time, with some excellent exceptions, the articles in reviews had confined themselves to notices, more or less excursive, of new books, and to discussions of the political or polemic questions of the day. The article now aspired to be a full dissertation on the history of any great period, on the life of any great man of any time, on the writings, on the influence, on the merits of authors of the highest fame. From a review it became an historical, biographical, philosophical essay.

This paper was followed by others of equal, some perhaps of superior excellence, each opening a new view into the vast range of the author's reading, showing his boldness and independence of judgement, the wonderful stores of his memory, his prodigality, sometimes perhaps uncontrolled, of allusion, illustration, similitude. A young Whig, of high and blameless character, popular with his friends, with the reputation of oratorical power in the Debating Rooms at Cambridge (he delivered one speech in London, we believe, at an Anti-Slavery Meeting, which made some noise), and the acknowledged author of such articles in one of the two popular journals of the day, could not but command the attention, and awaken the hopes of his party. If ever there was a nobleman a patron of letters from a deep and genuine and discriminating love of letters, it was Lord Lansdowne. Lord Lansdowne offered a seat in Parliament to the author of the admirable articles in the *Edinburgh Review*. On the acceptance of this offer there could be no hesitation; his political opinions were in the strictest unison with Lord Lansdowne's. Few public men have been so calmly, deliberately true to their first political opinions as Macaulay. Unquestionably, change of political opinions, on full unselfish conviction, according to change of circumstances, may be the noblest act of moral courage, especially in the face of obloquy and misrepresentation. The best men may become wiser as they grow older. But to this trial Macaulay was never subjected, he was never called upon to this effort of self-sacrifice. He was a liberal in the highest and widest sense; some may think that he carried these views too far, some not far enough. But during life he was unswerving, without vacillation. The line which he drew between constitutional liberty and democracy in his early speeches on Reform and on the Charter, was precisely the same with that which he drew

late in life, in a remarkable letter on the prospects and probable destiny of the United States of America.

Four years after he had been called to the bar, in 1830, Macaulay was returned to Parliament for Calne. His public life had now commenced. That public life it may be convenient briefly to survey in its several phases, as Statesman, Orator, Poet, Essayist, Historian. Such was his remarkable variety and versatility. Very few men indeed have achieved great things in such different kinds of excellence.

In Parliament he had too much wisdom, too much self-respect, too much respect for his auditory (an auditory just in the main but severe, sometimes capricious in its justice, and jealous above all even of merit, if obtrusive, importunate, or too self-confident), to thrust himself forward at once into the foremost ranks. Till the Reform Bill he was content to try his arms on rare occasions ; he would not waste his power on desultory skirmishes and on trivial subjects. Upon that momentous question, the Reform of 1832, he first put forth his strength. But of his speeches hereafter. The reputation acquired during these debates secured him a seat in Parliament, independent even on generous and unexacting friendship ; he was returned, December 1832, for the wealthy and populous borough of Leeds, enfranchised by the Reform Bill. In the year 1834, a great, and no doubt unexpected change took place in his prospects, it might seem in his destination. In 1832 he had accepted the office of Secretary to the Board of Control. In his official capacity (in 1834) he made a speech on the renewal of the Indian Charter, a speech which may be read in no unfavourable comparison with Burke's most splendid orations. In breadth and comprehensiveness of view it may compete, in fulness and accuracy surpass, in richness of diction rival the renowned orator ; of course, as the occasion was so different, it had nothing of the passion, the terrible picturesqueness, the vituperation ; but it had calm statesmanship, and philosophical, or rather, perhaps, historical thought. This speech of itself might seem to designate him to the Government as a member of the New Council which was to legislate for India. The offer was made. The vast field of India was of itself likely to seize on his imagination ; he might aspire to be the legislator, as Heber the religious missionary, of that wonderful realm. He had many friends, the family of Grant especially (the present Lord Glenelg was the President of the Board of Control), closely

connected with India; how much he had read or thought on the subject, his papers on Clive and Hastings (written later) may nevertheless bear testimony. Still, no doubt, prudential motives, and those of no ungenerous prudence, influenced his determination. By a few years of economy, careful but not illiberal, he might make a provision for his future life (he was a man with no expensive or prodigal habits) which might place him above dependence either on the servitude of office, or the servitude of literary labour. There was another incentive—his family had never been affluent. He might add to the comforts and assist in the advancement of those to whom he was attached by the strongest domestic affections, a duty which he discharged with unsparing generosity. In India he took his seat as Member of the Council and as President of the Law Commission. It has been supposed, and indeed asserted, that this legislative mission was barren and without result; now, however, it is bearing its mature fruits. After much, perhaps inevitable, delay, and repeated revisions, the Indian Criminal Code, in the formation of which he took a leading part, and which he had enriched with most valuable explanatory notes, will, with some alterations, and those not substantial, from January next have the force of law throughout British India. Macaulay's share in this great work, especially his notes, is declared by those who have a right to judge on such subjects, to have placed his reputation as a jurist on a solid foundation. It is the first, and therefore the most important, of a series of operations upon the judicial system of India, which will have a great effect upon the state of society in that country; and will not be without influence upon the jurisprudence of England.

Soon after his return to England in 1838, in January 1840, he was elected by acclamation, representative of the City of Edinburgh; that seat he filled undisturbed till July 1847. He had already been named on the Privy Council, and had accepted the office of Secretary at War. He was Secretary at War, with a seat in the cabinet, about two years, from 1839 to 1841. On the return of his friends to power, he became, July 12, 1846, Paymaster of the Forces.

But throughout this period of his life the great inward struggle was going on within his mind between the ambition of public usefulness, of parliamentary and official distinction, and the love of letters, which will rarely brook a rival on the throne, the still higher ambition,

as he thought, of adding some great work to the treasures of English thought and English literature. In the office at Whitehall or the Horse Guards, on the benches of the House of Commons, amid the applauses or admiring silence of the House, his heart was in his library, and among his books. He yearned for a place not so much among the great parliamentary leaders and the famous statesmen of the land, the Chathams, Burkes, Foxs, as among the immortal writers in verse and prose, the Miltons, Clarendons, Addisons, Gibbons. The auditory which he coveted was that vast expanding world throughout which the English language is spoken; the fame, that which will only die with the death of English letters. Throughout the whole time of his absence from England, on his voyage to India and on his return, in India, as far as leisure would allow, and during his parliamentary and official career, he was still with his indefatigable industry heaping up stores of knowledge, stores which could not overload his capacious and retentive memory,—memory, whose grasp and self-command seemed to expand with its accumulating treasures,—memory, which disdained nothing as beneath it, and was never perplexed or burdened by its incalculable possessions. As a curious instance of his range and activity of reading, among the books which he took with him to India, were the many huge volumes of St. Chrysostom's works. Their still almost pure and harmonious Greek, and their importance in the history of religious opinion (always a subject of deep interest), carried him through a task which has been achieved by few professional theologians. As an illustration of his powers of memory, he has said, and he was a most unboastful man, that if Milton's great poem were lost, he thought that he could accurately commit to writing at least all the first books of *Paradise Lost*.

This life-long inward strife, which perhaps might have remained unreconciled till towards the close of his days, came to a sudden and unexpected issue. At the election in 1847, Macaulay was the rejected candidate for the City of Edinburgh. Nor can it be denied, though those who admire Macaulay will not admire him the less, that he was accessory to his own failure. The event turned on a religious question, in which Edinburgh, true to its old Scotch prejudices, adhered to the less liberal view. Macaulay could not be persuaded to humour, to temporize, even to conciliate. He took the

loftiest tone, boldly, indignantly rebuked the voters for their narrow, in his estimation, discreditable bigotry. He felt, there can be no doubt, this blow at the time bitterly. He was perhaps not suited for, he had never before been tried in the rough and coarse work of the popular canvass and the hustings ; he was distressed at the desertion or the lukewarmness of friends ; he was ashamed, as he openly declared, of the disgrace which Edinburgh inflicted on herself. In a striking poem, recently published, in which are some of the finest stanzas in the language, he gave full vent to his feelings of indignation and sorrow. But at the same time, and in the same poem, he finds and expresses his lofty sense of consolation. The great debate was ended ; he was released ; he was emancipated from public, from parliamentary life. He might retire with dignity and honour to the undisturbed, undistracted cultivation of letters ; henceforth his study was his scene of action ; literary fame was to be the undivided mistress of his affections, his earthly exceeding great reward. Edinburgh made a few years after noble amends by returning Macaulay (at the election in 1852) without solicitation, without expense, even without the usual flattery of a personal canvass ; he had but to appear, to accept, and return thanks for his ovation. He sat for Edinburgh from July 1852 to 1856. But he sat without the trammels, without the least desire of office : he spoke rarely, but never without effect. In 1856, failing health compelled him to resign that honourable post. Some other honours, but honours which belonged to a man of letters, awaited him and courted his acceptance. He was Lord Rector of the University of Glasgow in 1848 ; Trustee of the British Museum, February 1847 (an office which he highly esteemed, and to which he attended with much assiduity, and with great public advantage) ; Fellow of the Royal Society, November 1849 ; Foreign Member of the French Academy, May 1857, and of the Prussian Order of Merit (1857) ; High Steward of Cambridge (1857). In the same year he was raised to the peerage, a tribute to his high and blameless character and transcendent literary distinction, and an act of royal favour, quite unexpected, but highly approved by all whose approbation was of real value.

So far our imperfect sketch has exhibited Lord Macaulay as a public man, as a jurist, and as a statesman ; some words must follow as to his rank as an orator. It is remarkable how rarely in this

country the famous and commanding public speaker, either in parliament or even at the bar, and the great writer, have met in the same person. Bolingbroke, Burke, and Macaulay (the unrivalled comedies of Sheridan, the State Papers and exquisite political satires of Canning are hardly in point) stand perhaps alone. If all the writings of Chatham, Pitt, Fox, Erskine, Peel, had been suppressed, the world would have suffered no great loss. Macaulay had no thought of resting his fame on his parliamentary speeches; he would willingly have left them to the rarely visited cemetery of the parliamentary history. He was placed under compulsion by the act of a piratical bookseller, who printed many of them (insinuating that he did so by authority) bristling with blunders, bad English, loose argument, errors and mistakes about events and persons, everything most abhorrent to Macaulay's taste and judgement. He was under the necessity of publishing a more trustworthy edition. We confess some gratitude for this bad act of the unprincipled Curll of our days, for some of these speeches appear to us oratorical compositions of the highest order. By all accounts Macaulay's delivery was far too rapid to be impressive; it wanted also variety and flexibility of intonation. Even the most practised reporters panted after him in vain; how much more the slower intellects of country gentlemen and the mass of the House! This, however, only heightens our astonishment that speeches so full, so profoundly meditated, yet with so much freedom, with no appearance of being got by heart, with such prodigality of illustration and allusion, should be poured forth with such unhesitating flow, with such bewildering quickness of utterance. To read them with delight and profit, we read them rather slowly; we can hardly conceive that they were spoken less deliberately. It may be questioned, and has been questioned, whether Macaulay was, or could have become, a masterly debater. This accomplishment, except in rare examples, is acquired only by long use and practice. When Macaulay entered the House, the first places were filled by men of established influence and much parliamentary training. Even if he had felt called upon to make himself more prominent, it may be doubted whether he could have sufficiently curbed his impetuous energy, or checked his torrent of words. He would have found it difficult to assume the stately, prudent, reserved, compressed reply; he might have torn his adversaries' arguments to shreds, but he

would not have been content without a host of other arguments, and so would have destroyed the effect of his own confutation. Still it is remarkable that on two occasions a speech of Macaulay's actually turned the vote of the house, and carried the question (a very rare event) in his own way,—the debate on the Copyright Act, and the question of Judges holding seats in the House of Commons. Though he took his seat, Lord Macaulay never spoke in the House of Peers ; he went down, we believe, more than once, with the intention of speaking, but some unexpected turn in the debate deprived him of his opportunity ; his friends, who knew the feeble state of his health at that time, were almost rejoiced at their disappointment in not hearing him in that which would have been so congenial a field for his studied and matured eloquence.

As a poet, the fame of Macaulay rests, with the exception of the stanzas above alluded to, and one or two small pieces, on his Ballads, his 'Lays of Rome,' his 'Armada,' his 'Cavalier' and 'Cromwellian,' and his 'Ivry and Moncontour.' In other departments of poetry he might have been endangered by his affluence and prodigality ; his prize poems, and some of his early writings betray the danger. But the essence of the ballad, of popular poetry (for which in all its forms, from the Prince of ballad writers Homer, to the common street ballad, which he caught up instantaneously, and could repeat by the score, he had an absolute passion), is simplicity—simplicity not inconsistent with the utmost picturesqueness, with the richest word-painting. Its whole excellence is in rapidity of movement, short sudden transition, sharp emphatic touches of tenderness or of the pathetic, in above all, life, unreposing, unflagging, vigorous, stirring life, with words enough, but not an idle word, words which strike home to the heart, and rivet themselves on the memory ; a cadence which enthalls and will not die away from the ear. The popularity of Macaulay's ballads is the best proof of their excellence ; they have become the burden of a host of imitators. Popularity may be a bad test of some of the higher kinds of poetry. Dante, Milton, Shakespeare, to be fully appreciated, may require a thoughtful, refined, enlightened constituency ; ballad poetry may be safely left to universal suffrage.

Even in his famous Essays Macaulay had not satisfied his own ambition, nor reached that place after which he aspired in English

letters. He seemed disposed to leave them buried in the voluminous journal in which they had appeared. Here, however, it was the honest admiration of the public, not the base desire of a bookseller for gain, which suggested and indeed compelled their separate publication. America set the example: the first collection was made to gratify the laudable curiosity of those who are spreading our language and our literature over a continent to which our island is but a speck in the ocean. However flattering this homage, American editions are not to be implicitly depended upon, and are confined to their own use. It became necessary to answer the demand in England, and edition after edition has followed in rapid unexhausted succession. On these essays (not perhaps fitly so called, at least very unlike the short essays on religious, moral, social subjects, such as Bacon's, Cowley's, Addison's, Johnson's, Goldsmith's) we cannot of course speak at length. They are rather philosophical, or historical disquisitions, and are remarkable in the first place for their vast range and variety. Some grapple with the most profound questions,—the Baconian philosophy, the law of population against Mr. Sadler, and what is called the Utilitarian philosophy. This essay Macaulay himself, with noble moderation and self-respect, refused to include in his own selection, not because he was disposed to retract one argument, or to recede from the severity of his judgement on the opinions which he undertook to refute, but because he had not done justice to the high character of his adversary, the late Mr. Mill. Some belong to literary criticism, on which he delighted to mingle singularly acute and original observations on the biographies of distinguished authors, their place in society; and the articles on Dryden, the Comic Dramatists of Charles II., Temple, Addison, Johnson, Byron, are the most full, instructive, and amusing views of the literary life of their respective ages, as well as of their specific works. The greater number, however, and doubtless the most valuable of the essays, are those which belong to history; a few to the history of Europe,—Machiavelli, Ranke's Lives of the Popes, Frederick the Great, Mirabeau, Barrère. In these two last, his judgements on the acts and on the men of the French Revolution are very striking. But the chief and the most important are those on English History. This was manifestly the subject which he had thought on most profoundly, investigated with the greatest industry, and studied down to what we may

call the very dregs and lees of our political and social and religious life. There is hardly an important period, at least in our later history, which has not passed under his review. With the justly honoured exception of Hallam's *Constitutional History*, Macaulay usually dismisses his author with a few words of respect or contempt, and draws almost altogether on his own resources. So Burleigh gives us the reign of Elizabeth; Bacon that of James I.; Milton, Hampden, of Charles I. and the Republic; Temple (with Mackintosh's *History*), Charles II. and the Revolution; Horace Walpole, Chatham, Pitt, the Georges; Clive and Hastings, the rise of our Indian Empire. The variety of topics is almost as nothing to the variety of information on every topic; he seemed to have read everything, and to recollect all that he had read.

As to the style of these essays, of Macaulay's style in general, a few observations. It was eminently his own, but his own not by strange words, or strange collocation of words, by phrases of perpetual occurrence, or the straining after original and striking terms of expression. Its characteristics were vigour and animation, copiousness, clearness, above all, sound English, now a rare excellence. The vigour and life were unabating; perhaps in that conscious strength which cost no exertion he did not always gauge and measure the force of his own words. Those who studied the progress of his writing might perhaps see that the full stream, though it never stagnated, might at first overflow its banks; in later days it ran with a more direct undivided torrent. His copiousness had nothing tumid, diffuse, Asiatic; no ornament for the sake of ornament. As to its clearness, one may read a sentence of Macaulay twice, to judge of its full force, never to comprehend its meaning. His English was pure, both in idiom and in words, pure to fastidiousness; not that he discarded, or did not make free use of the plainest and most homely terms (he had a sovereign contempt for what is called the dignity of history, which would keep itself above the vulgar tongue), but every word must be genuine English, nothing that approached real vulgarity; nothing that had not the stamp of popular use, or the authority of sound English writers, nothing unfamiliar to the common ear.

The *Essays*, however, were but preparatory, subsidiary to the great history, which was the final aim, and the palmary ambition of Macau-

lay. On the function, on the proper rank, on the real province and use of history, he had meditated long and profoundly. His ideal of the perfect historian, such as he aspired to be, may be found in an essay, somewhat too excursive, in the *Edinburgh Review*, republished in the recent volumes. A perfect history, according to Macaulay, would combine the unity and order of the great classical historians, with the diversity and immense range of modern affairs. This was but one condition; the history would not be content with recording the wars and treaties, the revolutions and great constitutional changes, the lives of kings, statesmen, generals; it would embrace the manners, usages, social habits, letters, arts, the whole life of the nation. It would cease to be haughtily aristocratic; it would show the progress of the people in all its ranks and orders. There can be no doubt that, as to the actual life of certain periods, Shakespeare and Scott are more true and trustworthy historians than Hume or even Clarendon. Why should not romance surrender up the province which it had usurped? Why should not all this, which is after all the instructive, not to say amusing part of the annals of mankind, be set in a framework of historic truth, instead of a framework of fiction? If we would really know our ancestors, if we would really know mankind, and look to history for this knowledge, how can history, secluding itself in a kind of stately majesty, affect to disdain this most important part of her office? Nothing can be more clumsy than the devices to which the historian sometimes has recourse. It may be excusable in historic dissertations (the form which Hallam's works have assumed) to have the book half text, half notes,—broken, fragmentary, without continuity. Hume and Robertson took refuge in appendices, in which they sum up with unsatisfactory brevity, what they have wanted skill to inweave into their narrative. Henry's history may be read as containing what Hume left out. If there is in notes much beyond citation of authorities, perhaps comparison of conflicting authorities (we may perhaps pardon in Gibbon something more), this can only show that the historian has an unworthy conception of his high art, or that he wants the real power and skill of an historian. But to this lofty view of the historian's function who is equal? It required all Macaulay's indefatigable research; for the historian, the true historian, must not confine himself to the chronicles and annals, the public records, the state papers, the political correspondence of

statesmen and ambassadors; he must search into, he must make himself familiar with the lowest, the most ephemeral, the most contemptible of the writings of the day. There is no trash which he must not digest; nothing so dull and wearisome that he must not wade through. Nor are books all; much is to be learned from observation; and Macaulay delighted in rambling over England, to visit the scenes of historic events, the residences of remarkable men: the siege of Derry was described from Derry and its neighbourhood; the exquisitely true and vivid epithets with which he paints the old Italian towns in his Roman ballads owe their life and reality to his travels in Italy. Finally, to order, dispose, work into a flowing and uninterrupted narrative, the whole of this matter demanded nothing less than his prodigious memory, ever at the command of his imagination; to arrange it without confusion, to distribute it according to the laws of historic perspective, to make it, in short, a history, as difficult to lay down as the most stirring and engrossing romance.

Alas! that all this matchless power and skill should end in a torso,—yet a torso if, as we fairly may, we take the Revolution and the reign of William III. as a whole, nearly complete in its stature, and in all its limbs! It is deeply to be lamented that Macaulay allowed himself to be called off by generous and grateful friendship to write the lives in the *Encyclopædia*. All of these, even that of Pitt (as far as it goes, a perfect biography), we would willingly sacrifice if we could fill up the few chasms in his history. And what would we not give for his Queen Anne? William III., to whom he first did justice, and not more than justice, when looked upon from a European, not from an English point of view, was a labour of love: but what would have been the more congenial age of Anne, in which he knew every one, the Queen and her Court, Harley, St. John, Swift, Pope, Arbuthnot, as if he had lived with them on the most intimate terms? That in the main Macaulay possessed the still higher qualities of a historian, truth and impartiality, we hesitate not to avow our opinion; of this posterity will judge, we quietly and confidently await its award. He spoke out too freely, too strongly, not to encounter some prejudices, some no doubt very honest political or religious feelings. He did not perhaps always nicely measure the strength of his own language; and he so abhorred meanness and dishonesty, that they appeared doubly mean and dishonest in men

of great fame and high pretensions. As to Marlborough, we are content to place Mr. Hallam's even more condemnatory verdict by the side of Macaulay's; and Macaulay had not reached the brighter part of Marlborough's career; in the last volume that great man is already shaking off the slough of his baser life. Penn's double and conflicting character (assuredly no rare occurrence in history) must be viewed on all sides. In Pennsylvania, the wise, Christian legislator, worthy of all praise, he was, in England, a vain busy man, proud of his influence with the king, who found it his interest to flatter him, and unable to keep himself out of the miserable intrigues of that miserable court.

A few sentences on Macaulay's conversational powers, on his private life still fewer. There is a common impression that in society he was engrossing and overpowering. Every one has heard the witty saying of his old friend (no two men could appreciate each other more highly or more justly) about "flashes of silence." But in the quiet intercourse with the single friend, no great talker was more free, easy and genial, than Macaulay. There was the most equable interchange of thought; he listened with as much courtesy, as he spoke with gentle and pleasant persuasiveness. In a larger circle, such as he delighted to meet and assemble around him to the close of his life, a few chosen intimates, some accomplished ladies, foreigners of the highest distinction, who were eager to make his acquaintance, his manners were frank and open. In conversation in such a circle, a commanding voice, high animal spirits, unrivalled quickness of apprehension, a flow of language as rapid as inexhaustible, gave him perhaps a larger share, but a share which few were not delighted to yield up to him. His thoughts were like lightning, and clothed themselves at once in words. While other men were thinking what they should say, and how they should say it, Macaulay had said it all, and a great deal more. And the stores which his memory had at instantaneous command! A wide range of Greek and Latin history and literature, English, French, Italian, Spanish; of German he had not so full a stock, but he knew the best works of the best authors; Dutch he learned for the purpose of his History. With these came anecdote, touches of character, drollery, fun, excellent stories excellently told. The hearer often longed for Macaulay's memory to carry off what he heard in a single

morning, in an after-dinner colloquy, or in a few hours in a country house.

Lord Macaulay was never married; his strong domestic affections were chiefly centred in his sister, happily married to his friend Sir Charles Trevelyan, and her family. Her children were to him as his own, and cherished with almost parental tenderness. As a friend, he was singularly stedfast; he was impatient of anything disparaging of one for whom he entertained sincere esteem. In the war of political life, he made, we believe, no lasting enemy; he secured the unswerving attachment of his political friends, to whom he had been unswervingly true. No act inconsistent with the highest honour and integrity was ever whispered against him. In all his writings, however his opinions, so strongly uttered, may have given offence to men of different sentiments, no sentence has been impeached as jarring against the loftiest principles of honour, justice, pure morality, rational religion.

In early life he was robust and active; and though his friends at a later period could not but perceive the progress of some mysterious malady (he was long harassed by a distressing cough), yet he rallied so frequently, and seemed to have so much buoyancy of constitution, that they hoped he might have life to achieve his great work. He himself felt inward monitions; his ambition receded from the hope of reaching the close of the first Brunswicks; before his last illness he had reduced his plan to the reign of Queen Anne.

His end, though not without warning to those who watched him with friendship and affection, was sudden and singularly quiet; on December 28, 1859, he fell asleep and woke not again.

He was buried, January 9, 1860, in Westminster Abbey, in Poet's Corner, his favourite haunt; and he was known to have expressed a modest hope that he might be thought worthy to repose there with the illustrious dead. He lies at the foot of Addison's statue, near to Johnson, and among many other of our most famous statesmen and men of letters.

The following notice of Professor Powell is taken from the Report for 1861 of the Council of the Royal Astronomical Society, of which he was a distinguished member.

"The Rev. BADEN POWELL was the eldest son of the late

Rev. Baden Powell, of Langton in Kent, and was born at Stamford Hill, near London, in 1796. He graduated at Oxford, where he took a first-class degree in mathematics in 1817. In 1820 he entered into holy orders, and in the following year obtained the vicarage of Plumstead in Kent. He was appointed Savilian Professor of Geometry in 1827, and Public Examiner soon afterwards; a post with which he was again honoured in 1831. He thus stood, as it were, the acknowledged representative of mathematical and physical science in the elder English University,—we may almost say the only representative; for when he first obtained the professorship, science was at the lowest ebb at Oxford. Mr. Powell exerted himself to bring this state of things before the educated world, by which he incurred some obloquy. But he persevered, and succeeded; the honourable position which Oxford now holds, and the bright prospects of the future, are due in good part to the exposure and remonstrance of the Savilian Professor.

“He performed the duties of his chair with urbanity, seeking to encourage his students by explaining and familiarising each point that would allow of it; towards which he had a happy talent of constructing his own models, of the simplest materials, for his practical illustrations. Thus, whenever requested to deliver lectures at public institutions, he came armed with appropriate diagrams and forms that essentially aided the comprehension of those who crowded to hear him. We have thus seen the Undulatory theory of Light treated, and Diffraction made—we may say—palpable. The Precession of the Equinoxes, and the phenomena of Aberration and Nutation, were rendered equally visible; and the hurried progress of Comets when approaching the perihelion, was so attractively shown, that the audience flocked down, after the lecture, to watch the comet vary its speed through its long ellipse towards the sun. His style of delivery was peculiarly quiet, showing his own clear conviction and comprehension of his subject; and his calmness was caused by depth of thought. This sedateness of manner pervaded all his writings and discourses, enabling him even to preach extempore on the most intricate doctrinal points without wandering from his subject.

“Meanwhile he had produced various works, as well scientific as theological. Among the first class may be cited his ‘Treatise on the

Differential and Integral Calculus ;' and another on the 'Geometry of Curves.' In 1834 he published his 'History of Natural Philosophy,' and in 1841 the 'Undulatory Theory of Light ;' besides which he was the author of several papers in the 'Philosophical Transactions' on Light, Heat, and Irradiation. Moreover, his tracts appear in the records of this [the Astronomical] Society, the Ashmolean collections, and the volumes of the British Association. In the other order of his writings we have to enumerate—besides those for the elucidation of pure religion—the 'Connexion of Natural and Divine Truth,' 1838 ; the 'Unity of Worlds,' 1855 ; 'Christianity without Judaism,' 1857 ; on the 'Study of the Evidences of Christianity,' 1860, &c.

"During the last years of his life Mr. Powell was a controversial theologian. His writings were of a cast which is called liberal by all, but by some in one sense, by some in another. The freedom of his criticism could not but provoke strong attack from his opponents. Of the controversy this Society can take no cognisance, but it must be remarked, as a mere matter of biography, that in his assault upon some modes of theological thought, to which the University once appeared unalterably given, Mr. Powell seems to have been as much of a precursor as in his efforts to stimulate science. The last of his writings appears as one of seven 'Essays and Reviews,' most of his colleagues being Oxford men ; and the whole of this work, which is in its fourth edition, shows that Oxford names of no mean note are now pledged to admit that freedom of examination which brought so much assault upon the isolated individual who first used it while actually connected with the University. Every meeting of educated men will contain those of the most opposite views as to his conclusions ; but all will admire the fearless manner in which, without reference to his own interests, he spoke out the conclusions of his mind.

"In the year 1850 Baden Powell was appointed one of the Government Committee of inquiry into the studies enjoined in Oxford ; he being well known as an ardent educational reformer, a fact pretty well evinced in his tract on 'State Education,' considered with reference to 'prevalent misconceptions on religious grounds.' In 1854 he was selected, at Aberdeen, one of the three judges to award the valuable Theological Burnett Prizes in that city. Nor was the range

of his capacity confined to argumentative studies only; for he not only possessed a large fund of general information, but was also a proficient in painting, and was well practised in the choral harmonies of church music, in which science he was a strong amateur.

"The Professor's lamented death, on the 11th of June, 1860, was the result of an attack on the lungs which commenced in the previous winter. He had been duly warned of his danger by his medical friends and attendants, several weeks before he expired; but he was resigned to the last, his only uneasiness being a difficulty of breathing, which, after a few days of extreme debility, terminated his existence. He died at his house in Stanhope Street, Hyde Park Gardens, at the age of 63, having scarcely ever been ill before."

Professor Powell was elected into the Royal Society in 1824, and repeatedly served on the Council. He was three times married, and leaves a numerous family. His widow is the daughter of Admiral W. H. Smyth, Fellow and formerly Foreign Secretary of the Royal Society.

WILLIAM SIMMS was born at Birmingham, in December 1793. His parents having removed to London, he was apprenticed to Mr. Bennet, a mathematical instrument maker, who had formerly worked under the eye of Ramsden. Mr. Simms afterwards commenced business at Bowman's Buildings, Aldersgate Street, where he constructed the large theodolites required by Colonel Colby for the Ordnance Survey, and established his reputation for excellence of workmanship. In 1826 he joined Troughton, and ultimately became sole proprietor of the well-known business in Fleet Street. The Cambridge Mural Circle, the whole of the instrument maker's part of the Greenwich Altazimuth, Transit Circle (for which he ground the 8-inch object-glass), Reflex Zenith-tube and Great Equatoreal, are monuments of his skill and ability. By the invention of his self-acting dividing machine, he reduced the process of graduation of instruments from a work of weeks to a work of hours, and with greater accuracy than before. The best evidence of the value of this machine appears in the fact that it was used to graduate the Zenith-distance Circle at the Greenwich Observatory. He took part also in the preliminary experiments required for the construction of the new Imperial Standard yard, and in the completion of that instrument.

Mr. Simms was a man of quiet unobtrusive manners, and of a fair and candid disposition, which won the esteem and, in not a few instances, the friendship of those with whom he transacted business. He became a Fellow of the Royal Astronomical Society in 1831, and served several times on the Council. He was elected a Fellow of the Royal Society in 1852. He died at his residence, Carshalton, June 21, 1860.

WILLIAM SPENCE was born of a respectable Yorkshire family at Hull in 1783: he commenced business in that town, and afterwards represented it in Parliament. At about ten years of age he was led, as he mentions in one of his addresses to the Entomological Society, "from mere boyish imitation to collect and dry plants, and to copy out the names of the Linnean classes and orders." This pursuit was interrupted by removal to a school, but he resumed it later, and when he had exhausted the plants of his neighbourhood, began the study of entomology with Coleoptera. In 1805, the present of a few insects, sent by the hand of a friend who was journeying to Suffolk, brought him into acquaintance, and eventually a lasting friendship, with the Rev. W. Kirby of Barham. To this friendship English literature owes a work which, with White's 'Selborne,' may be said to have done more to promote a taste for the study of natural history than any other of its class, and the first notion of this work was suggested by Mr. Spence in a letter to Mr. Kirby in 1808; but the authorities to be consulted were numerous, and the labour was great, so that the first volume did not appear until 1815. The second volume was published in 1817, the first having in the meantime passed through three editions. Mr. Spence now became subject to severe headaches and other signs of illness, which compelled him to abandon his studies for a while; he therefore, persuaded by his medical advisers, shut up his books, and quitted Yorkshire for Devonshire. During his residence at Exmouth he occupied himself with outdoor observations of insects; and his health having improved, the third and fourth volumes of the 'Introduction to Entomology, or Elements of the Natural History of Insects,' were brought out in 1826. Of this remarkable work it may be said without exaggeration, that it has charmed thousands of readers, and induced many to interest themselves in the study of insect life, who without it might

never have bestowed a thought on natural history. The complete work, including fifty-one letters, of which the whole of nine and parts of twenty-two others are from the pen of Mr. Spence, went through six editions prior to the decease of Mr. Kirby. In 1856 a seventh edition was published by the surviving author, more compact in form and lower in price than any which had preceded.

Seeking further to improve his health, Mr. Spence journeyed with his family to the continent in 1826, and remained abroad for eight years, during which he visited many of the principal cities of Europe, and passed the summer months in Switzerland. After returning to England he took up his residence in London, and employed his leisure in the promotion of science, particularly in the formation of the Entomological Society in 1833. Of that Society he remained, since Mr. Kirby's death, the sole honorary English member,—a distinction now confined exclusively to foreigners. In 1847, and on other occasions, he was elected President of the Society, and raised it by his exertions while in the chair, from weakness and depression, to strength of numbers and activity. He frequently attended the Society's meetings, as well as those of the Royal and Linnean Society, until increasing deafness deprived him of the pleasure of intercourse; but though thus withheld from his fellows by infirmity, he was always accessible when his advice was wanted, and ready to take trouble where encouragement could be given or assistance bestowed.

Mr. Spence was elected a Fellow of the Linnean Society in 1806, and of the Royal Society in 1834, and was chosen into their respective councils. He was author of numerous papers published in the Transactions of the Linnean and Entomological Society.

During his parliamentary career he laboured to promote measures for rendering Great Britain entirely independent of foreign commerce, and published a pamphlet on the subject, which at the time attracted much attention. He died on the 6th of January, 1860, at the age of 77.

THEOPHILUS THOMPSON, M.D., was the son of Nathaniel Thompson, Esq., and was born at Islington on the 20th of September, 1807. His professional studies were commenced at St. Bartholomew's Hospital, prosecuted at Dublin and Paris, and completed at Edinburgh, where he took his degree in 1830. He settled in practice in London,

and was soon after elected Physician to the Northern Dispensary, and for fourteen years zealously discharged the duties of that office. In 1847 he was appointed Physician to the Hospital for Consumption, and much of his subsequent labour was specially directed to the investigation and treatment of that disease.

Dr. Thompson's chief writings are the following :—‘Annals of Influenza,’ published by the Sydenham Society, 1851 ; ‘Lectures on Diseases of the Chest,’ 1854, and ‘Lettsomian Lectures on Consumption,’ 1855 ; besides the chapters on “Hysteria,” “Neuralgia” and “Chorea” in the ‘Library of Medicine,’ edited by Dr. Tweedie, 1840. He also contributed various papers on professional subjects to the Medico-Chirurgical Transactions, and to different medical journals. He was elected a Fellow of the Royal Society in 1846, and is the author of two papers on the changes produced in the blood by the administration of oils, printed in the ‘Proceedings’ in 1854 and 1858.

Dr. Thompson was held in high esteem by his professional brethren, and was greatly beloved by his patients. He was gentle and modest in nature, but of inflexible moral integrity ; and throughout his useful life he was actuated by a disinterested desire for the advancement of medical knowledge and the promotion of the right interests of his profession. He was a man of unaffected piety, which influenced him through life, and sustained him in resigned and cheerful submission under the afflicting malady which preceded his death. This consisted in a species of atrophy, which invaded his frame, and, without affecting his mind, eventually deprived him of all muscular power. He died on the 11th of August, 1860, from the immediate effect of bronchitis, which speedily prevailed over his well-nigh exhausted strength.

Dr. ROBERT BENTLEY TODD was born at Dublin on the 9th of April, 1809. His father, Charles Hawkes Todd, Professor of Anatomy and Surgery in the Royal College of Surgeons of Ireland, after attaining the greatest eminence and success in his profession, was cut off at the early age of 46, leaving sixteen children. Of this large family Dr. Todd was the second son ; he was educated at Trinity College, Dublin, where he graduated in Arts and in Medicine, and afterwards passed a year in Paris in prosecution of his medical

studies. He then commenced practice as a Physician in London, and having obtained the Degree of M.D. from the University of Oxford, was in 1837 admitted a Fellow of the College of Physicians. About the time of his settling in London Dr. Todd became Teacher of Anatomy in the Aldersgate School of Medicine; and in 1836 he was appointed Professor of Physiology and of General and Morbid Anatomy in King's College. This Professorship he held until 1853, when he felt himself compelled to withdraw from it, in consequence of his increasing occupation as a Physician in large practice; meanwhile the opening of King's College Hospital, in the establishment of which he had taken an active part, afforded him a field for acquiring experience as a hospital physician, and for exercising his talent in clinical instruction, a duty he continued to perform until within a few weeks of his death.

Dr. Todd's was a life of active thought and steadfast work; and accordingly he soon acquired distinction as a medical teacher and writer, and as a scientific inquirer. About the outset of his career in London he projected the well-known 'Cyclopædia of Anatomy and Physiology,' of which he was the Editor, and to which he contributed several important articles. Some years later he published, in association with Mr. Bowman, 'The Physiological Anatomy and Physiology of Man,' a work abounding in valuable original matter. Of various subjects in Physiology which engaged his attention, the nervous system was perhaps that which interested him the most, and he has ably and lucidly written on its structure, functions, and diseases. But it was as a practical physician and clinical professor that Dr. Todd attained his greatest eminence. Some years before his death he had risen to the foremost rank in medical practice, and his clinical visits and lectures were assiduously attended by many devoted pupils. A selection of these lectures was published in three successive volumes. The last of these, completed only immediately before his death, contains an exposition of his views on the nature and treatment of acute inflammatory diseases,—a subject on which medical opinion has, from time to time, fluctuated between two extremes. Considering the zeal with which he inculcated his views and the boldness with which he exemplified them in actual practice, as well as his eminent and influential position, Dr. Todd may be said to have taken the lead among those who

in our time have advocated the stimulating and supporting, as opposed to the antiphlogistic and depleting mode of treatment. The present is not a fitting occasion for criticising opinion on questions in practical medicine; but this much we may be permitted to say, that even should the views maintained by Dr. Todd not ultimately prevail, a balance of good can scarcely fail to accrue from his rational exposition and discussion of the doctrine in his lectures and writings, and especially from his fearlessly submitting the results of its practical application to open scrutiny in a clinical hospital.

Dr. Todd was elected a Fellow of the Royal Society in 1838, and in 1838 and 1839 he served on the Council.

For some years before his death it was evident to Dr. Todd's medical friends that he was labouring under some serious internal disorder, but he continued actively to discharge his professional duties; at length, however, the crisis arrived, and he was cut off on the 30th of January, 1860, by repeated attacks of hæmatemesis, which was afterwards ascertained to have been caused by disease of the liver. He has left a widow and four children.

Besides the works of which the titles have been already mentioned, and single clinical lectures reported from time to time in the Medical Journals, Dr. Todd is the author of the following:—

‘Clinical Lectures on Paralysis, Disease of the Brain and other affections of the Nervous System,’ 1854.

‘Clinical Lectures on certain Diseases of the Urinary Organs, and on Dropsies,’ 1857.

‘Clinical Lectures on certain Acute Diseases,’ 1860.

‘On Gout, Rheumatic Fever, and Chronic Rheumatism of the Joints,’ 1843.

“On the Contractility or Irritability of the Muscles of Paralysed Limbs,” &c., *Medico-Chirurgical Transactions* for 1847, vol. xxx.

“Additional Experiments on the Excitability of Paralysed and Healthy Limbs by the Galvanic Current,” *Ibid.* 1853, vol. xxxvi.

Twenty-eight articles on Anatomy, Physiology and Morbid Anatomy, in the *Cyclopædia*. Those on the Nervous System were republished under the following title:—

“The Anatomy of the Brain, Spinal Cord, and Ganglions,” 1845.

HORACE HAYMAN WILSON was born in 1786, and died in London on the 8th of May, 1860, at the age of 74, leaving a reputation of Eastern scholarship which has no equal among Englishmen, except in Sir William Jones and Henry Thomas Colebrooke. After receiving a good classical and professional education, he proceeded to India in 1808, in the Medical Service of the Government. He never, however, engaged in the practice of his profession, but being a skilful chemist and metallurgist, he was at once attached to the Mint of Calcutta, which stood in need of such services as he could render, and in due time he became Master of the Mint, a post which he held during his whole stay in India.

At Calcutta Mr. Wilson became acquainted with Colebrooke, and by his example and advice was induced to engage in the study of the Sanskrit language and literature. The fruits of his devotion were seen as early as 1813, when he published his first work, the translation in verse of a Sanskrit poem, called 'The Cloud Messenger.' This performance, equally distinguished by fidelity and good taste, at once established the author's reputation as an oriental scholar. From this time, the list of Mr. Wilson's various publications on oriental questions is too manifold for citation, and we need only name a few of the most remarkable. In 1819 he published the first, and in 1832 the second edition of his Sanskrit and English Dictionary, the first work of the kind that had ever been given to the public, the work which has been the main guide ever since of the student of the Sanskrit language and of comparative philology. This was followed by a lucid grammar of the complex and difficult Sanskrit, and by translations of the 'Vedas' and 'Puranas,' the most sacred writings of the Hindus. In 1840 he published his continuation of Mill's 'History of India,' in three volumes, and as late as 1854, his 'Glossary of Indian Terms,' a quarto of above 700 pages, a work replete with useful knowledge and ingenious criticism, in which Mr. Wilson shows his knowledge not only of the recondite language of India, but of its many vernacular idioms, as well as of the abundant Arabic and Persian words which have found their way into them.

While he was still absent in India in 1833, the University of Oxford chose him for the Boden Professorship of Sanskrit; and about the same time the Home Government of India named him Librarian and Curator of their Library and Collection of Natural History and

Antiquities. These lucrative appointments served only as incitements to further exertions, and Mr. Wilson's useful and valuable labours were continued almost to the day of his death.

Mr. Wilson was not a laborious scholar and a prolific writer only, he was also a careful and judicious inquirer. He was, indeed, a highly accomplished man ; for with his profound knowledge of the languages and literature of the East, he combined a familiarity with the ancient and modern ones of Europe. To these he added skill in music and in the histrionic art, in which he was an excellent performer.

Mr. Wilson was elected a Fellow of the Royal Society in 1834. He married a grand-daughter of the celebrated Mrs. Siddons, and by her, who survives him, had a family of sons and daughters.

M. LOUIS POINSOT was born in Paris on the 3rd of January, 1777 ; quitted the École Polytechnique in the capacity of Ingénieur des Ponts et Chaussées in 1796 ; was appointed Professor at the Lycée Bonaparte ; Professor and Examiner of the pupils who had completed the course of instruction at the École Polytechnique, and member of the Council for improving that institution. He was elected Member of the Institute in 1813, in the place rendered vacant by the death of Lagrange, by whom his future eminence had been predicted. He became Grand Officer of the Legion of Honour, Peer of France and Senator. He died, unmarried, on the 5th of December, 1859, at the age of nearly 83 years. The greater part of his life passed happily ; while still young his talents were appreciated by the most eminent judges ; in his advanced years he received the highest rewards from his countrymen. With his simple habits, the emoluments of the numerous and honourable appointments he held, and the profits of nine large editions of his 'Statics,' in addition to a moderate family inheritance, enabled him to leave at his death a fortune of upwards of 1,200,000 francs.

He was regarded as one of the most profound geometers in Europe. His philosophic mind suggested new methods of scientific investigation. His writings, always remarkable for their clearness and elegance, are frequently expressed in language divested of the technicalities of algebra. M. Chasles, alluding to Poinso't's new theory of rotation in the preface to his 'Géométrie supérieu'r,' expresses himself nearly in the following terms :—Nothing can be more beautiful than these direct,

lucid and graphic considerations, by means of which a great geometer, employing the ingenious doctrine of couples in dynamics, has unfolded all the geometric and dynamic properties of a heavy body in motion. . . . With the sole aid of geometric reasoning, M. Poinso^t renders palpable, and depicts all the circumstances of the motion of a solid.

The titles and dates of M. Poinso^t's principal works are as follows :—"Sur les polygones et les polyèdres," *Journal de l'École Polytechnique*, 1809 ; "Mémoire sur l'application de l'Algèbre à la théorie des nombres et à la recherche des racines primitives," *Journal de l'École Polytechnique*, 1820 ; 'Éléments de Statique, suivis de quatre Mémoires,' "Sur la composition des moments et des aires dans la mécanique" (from the *Journal de l'École Polytechnique*, 1804) ; 'Sur le plan invariable du système du Monde ;' 'Théorie générale de l'équilibre et du mouvement des systèmes ;' 'Théorie nouvelle de la rotation des cords,' a classical work, in which M. Poinso^t first propounded his beautiful theory of couples, and of which the 9th edition appeared in 1848 ; 'Recherches sur l'Analyse des sections angulaires,' 1825 ; 'Reflexions sur les principes fondamentaux de la théorie des nombres,' 1845 ; 'Théorie nouvelle de la rotation des corps,' 1851 ; 'Théorie des cônes circulaires roulants,' 1853 ; 'Sur la percussion des corps,' 1857 ; 'Précession des équinoxes,' 1857 ; 'Note sur la théorie des polyèdres,' 1858.

HEINRICH RATHKE was the son of a ship-carpenter of Dantzic, and was born in that town on the 25th of August, 1793. Being destined for the medical profession, he studied with that view in Göttingen and in Berlin, and in 1818 he commenced practice in his native city. While at Göttingen, however, he had acquired under the mastership of Blumenbach a decided taste for zootomical and zoological pursuits, and had, even in his student years, undertaken original researches in these branches of science. Accordingly, amid the more pressing occupations of professional life he continued to pursue with eagerness his favourite studies, and soon acquired the reputation of an able and accomplished biologist. His appointment to the chair of Physiology in Dorpat, to which he was called in 1828, enabled him thenceforward to give himself up entirely to scientific work ; and, by the death of Eschscholtz, the sphere of his profes-

social duties was soon extended to Comparative Anatomy and Zoology. After seven years' agreeable and successful labour in Dorpat, Rathke was recalled to his native country to succeed his distinguished friend Von Baer, whom we still happily number among our Foreign Members, as Professor of Anatomy and Zoology in Königsberg, where he continued till the time of his death.

The chosen task of Rathke's scientific life was the investigation of the laws of formation of the animal body; and he soon perceived that the solution of the great questions involved was to be sought for not only in the examination of the mature structure, but also, and indeed with the best promise of success, in the study of the body in its embryo state, and in tracing its several parts through their successive phases of development up to their final condition. Zootomy and the study of embryonic development were in his hands mutually elucidative in determining the morphological equivalence of apparently dissimilar forms; and, in this way, passing from the one course of investigation to the other as the object of inquiry demanded, and labouring unremittingly as well as successfully, Rathke has earned a foremost place among those who have advanced the science of Animal Morphology.

Rathke's earliest researches were directed to the anatomy and development of Amphibia and Fishes. The most notable results were his various papers on the internal structure, in many ways so remarkable, of the Cyclostomes, and his monography on the development of the *Blennius viviparus*, the first thorough history of the embryogeny of a fish that had then appeared.

He next applied himself to the difficult problem of tracing the development of the genital system in the series of vertebrated animals, following out the metamorphoses of the Wolffian body in reptiles, birds, and mammals, and investigating its relation to the sexual organs. With the results of these inquiries appeared the account of his researches on the development of the respiratory apparatus, and the announcement of his well-known and important discovery that the embryos of all vertebrata have at a certain period the rudiments of a branchial system in form of arches and apertures, although without formation of real gills in the higher classes.

These extensive labours having been accomplished, and Von Baer's celebrated work on animal development having in the mean time

appeared, there remained, of the vertebrata, only the three orders of reptiles whose embryological history was stilled untouched. To these, therefore, Rathke resolved to extend his inquiries, and in 1838 produced his account of the embryogeny of the snake (*Coluber natrix*), and ten years later that of the Testudines. Both works are replete with new matter, and in that on the serpent especially the development of the several organs from commencement to maturity is handled with a depth and thoroughness of treatment hitherto unsurpassed. The third monography on the development of Crocodiles has been left by him nearly complete, and, we learn, will be published as a posthumous work.

The foundation of our more accurate knowledge of the embryology of the Articulata may be said to have been laid by Rathke's well-known memoir on the development of the river-crab, which appeared in 1829, and for which he obtained the Gold Medal of the French Academy of Sciences. He afterwards availed himself of the opportunities afforded him by his residence at Dorpat to extend his researches on the Crustacea; and with the view of prosecuting his inquiries on marine Invertebrata, he made a voyage from Dorpat to the Crimea in 1833, and another from Königsberg to the shores of Norway in 1839.

In the latter years of his life Rathke was engaged in two works which he has left nearly in a complete state—one on the development of the snail, the other on *Nephelis* and some allied annelides. He had long intended to publish a systematic treatise on Embryology and Comparative Anatomy founded on his academical lectures; this intention he did not live to carry out, but since his death the outlines of his lectures on the development of the vertebrata have been published under the title of "*Entwicklungsgeschichte der Wirbelthiere*," 8vo. Leipsic, 1861.

Indefatigably employed as an original inquirer, Rathke was none the less attentive to his duties as an Academical Professor. Up to the year of his death he was favoured with excellent health, but after suffering some time from severe catarrh, from which he partially recovered, he was cut off suddenly by an apoplectic seizure on the 15th of September, 1860.

Most of the eminent Societies of Europe enrolled Rathke among

their members ; his election among the Foreign Members of the Royal Society took place in 1855*.

* The present brief sketch of the life and labours of Rathke has been taken principally from an obituary notice by Professor Zaddach in the Proceedings of the Physical and Economical Society of Königsberg for December 1860, which has been republished, together with a complete list of Rathke's writings, in the December Number of the N. Preuss. Provinc. Blätter, 3^{te} Folge, vol. vi.